

LISTING OF CLAIMS

1. (Currently amended) A light emitting diode package comprising:
a one piece ceramic substrate and cup for mounting a light emitting diode, said one piece ceramic substrate and cup formed from an opaque ceramic material and defining a cavity with a vertical ceramic sidewall, wherein said cavity is shaped to focus light in a predetermined direction; and
a metallic coating on a portion of said ceramic substrate for reflecting light in a predetermined direction.
2. (Previously presented) The light emitting diode package as recited in Claim 1 wherein said cavity is substantially a rectangular shaped cavity.
3. (Previously Presented) The light emitting diode package as recited in Claim 1 wherein said cavity is substantially a trapezoidal shaped cavity.
4. (Previously Presented) The light emitting diode package as recited in Claim 1 wherein said cavity is substantially an oval shaped cavity.
5. (Previously Presented) The light emitting diode package as recited in Claim 1 wherein said cavity is substantially a circular shaped cavity.
6. (Cancelled)
7. (Cancelled)

8. (Currently amended) A method for manufacture of a light emitting diode package comprising:

forming a one piece ceramic substrate and cup for mounting a light emitting diode, said one piece ceramic substrate and cup formed from an opaque ceramic material and defining a cavity with a vertical ceramic sidewall, and said cavity having a bottom and a top, wherein said cavity is shaped to focus light in a predetermined direction;

coating a portion of said ceramic cavity with a light reflective material;

positioning a light emitting diode on said substrate; and

depositing an optically transparent material in said cavity to protect said light emitting diode.

9. (Previously Presented) The method as recited in Claim 8 wherein said forming said ceramic substrate comprises forming a cavity that is substantially rectangular shaped.

10. (Previously Presented) The method as recited in Claim 8 wherein said forming said ceramic substrate comprises forming a cavity that is substantially trapezoidal shaped.

11. (Previously Presented) The method as recited in Claim 8 wherein said forming said ceramic substrate comprises forming a cavity that is substantially oval shaped.

12. (Previously Presented) The method as recited in Claim 8 wherein said forming said ceramic substrate comprises forming a cavity that is substantially circular shaped.

13. (Cancelled)

14. (Cancelled)

15. (Original) The method as recited in Claim 8 wherein said positioning said light emitting diode comprises determining a location between said bottom and said top of said cavity to locate said light emitting diode to achieve a predetermined viewing angle of said light emitting diode.

16. (Original) The method as recited in Claim 15 further comprising locating said light emitting diode closer to said bottom of said cavity to reduce said viewing angle of said light emitting diode.

17. (Original) The method as recited in Claim 15 further comprising locating said light emitting diode closer to said top of said cavity to increase said viewing angle of said light emitting diode.

18. (Original) The method as recited in Claim 8 wherein said depositing said optically transparent material in said cavity to protect said light emitting diode comprises forming a domed layer of said optically transparent material over said light emitting diode.

19. (Original) The method as recited in Claim 8 wherein said depositing said optically transparent material in said cavity to protect said light emitting diode comprises forming a concaved layer of said optically transparent material over said light emitting diode.

20. (Cancelled)

21. (Cancelled)

22. (New) The light emitting diode package as recited in Claim 1 wherein the opaque ceramic material is an alumina or aluminum nitride based material.

23. (New) The method as recited in Claim 8 wherein said forming said ceramic substrate comprises using a die that can be stamped on a sheet of ceramic material to form the one piece ceramic substrate and cup.

24. (New) The method as recited in Claim 8 wherein the opaque ceramic material is an alumina or aluminum nitride based material.

25. (New) A light emitting diode package comprising:
a ceramic one piece substrate and cup package for mounting a light emitting diode,
said ceramic one piece substrate and cup package defining a cavity with substantially vertical
ceramic sidewalls;
wherein the ceramic one piece substrate and cup package is formed from an opaque
ceramic material.

26. (New) The light emitting diode package of claim 25 wherein the opaque
ceramic material is an alumina or aluminum nitride based material.